

(C) Amendments to the Claims

Cancel all claims of record and substitute new Claims 19 through 24 as follows.

Claims 1-18 (Canceled)

Claims 19-24 added as follows:

Claim 19 (new) A system of methods providing e-procurement comprising the following methods:

- (a) a method of allowing requisitioners in end-user units of a government or entity to digitally place requisitions for goods and/or services for conversion or pooling of such requisitions into orders for purchase, whether via Internet-based reverse-auction or otherwise, comprising:
 - (1) using digital communication between a central purchasing authority and various requisition nodes for placement of requisitions for goods and/or services , and
 - (2) receiving any requisition thus placed, and converting it into, splitting it into, or consolidating it with other requisitions into one or more orders, alternatively for posting to an Internet-based reverse-auction or for purchase otherwise;
- (b) a method of verifying authorized status of any given requisition node from which a requisition is placed, and of any given requisitioner making that same requisition, comprising:

- (1) automatic digital detection of a unique digital address of a requisition node from which requisitioning digital communication is initiated,
- (2) digitally verifying authorized requisitioning status of that requisition node in a database of such authorized requisition nodes maintained by said central purchasing authority,
- (3) requesting automatically that each requisitioner digitally enter a unique, pre-assigned or agreed-upon identifier and password, where said identifier is any digitizable data, including, without limitation, alphanumerical, graphical, or biometric data, and where said password is digitizable alphanumeric data,
- (4) determining digitally whether any identifier and any password data is entered within a pre-set time limit,
- (5) determining digitally whether any entered identifier data, and any entered password data match respective identifier and password data for any authorized requisitioner in a database of authorized requisitioners maintained by said central purchasing authority, and
- (6) denying requisitioning access automatically in the event that either:
 - (a) the detected digital address does not match any authorized requisition node digital address;
 - (b) no identifier data, or no password data is entered within said pre-set time limit; or
 - (c) the identifier data or the password data entered do not match respective identifier and password data in the database of requisition nodes maintained by said central purchasing authority;

(c) a method of inventory minimization through requisition fulfillment from warehoused stock-on-hand, prior to resort to purchase of goods, comprising:

- (1) maintaining digitally a centralized database of all goods warehoused as stock-on-hand anywhere by the government or entity available for fulfillment of requisitions, noting as to each good whether it is available for requisition by any unit, or only by a specific unit or units,
- (2) comparing digitally, upon any requisition, each good requisitioned, including its quantity, to said centralized database, and identifying every warehoused good available to fully or partly fulfill said requisition,
- (3) determining digitally, given the location of the requisition-matching, warehoused good or goods identified as available, compared to a delivery destination or destinations specified in said requisition, and given quantity, size and mobility of the available goods at each warehoused location, and pre-ascertained delivery route or routes, whether to fulfill said requisition from said available goods, and
- (4) fulfilling automatically, in the case of an affirmative decision in Element (3) of this Method (c), above, either fully or partly said requisition from the requisition-matching available good or goods, by adjusting all digital data affected by requisition fulfillment in this manner accordingly, and by advising all personnel involved in this fulfillment of actions and transport required to effect said fulfillment and, in the event only partial fulfillment is thereby achieved, processing the unfulfilled balance of said requisition by way of purchase, whether through spot, or negotiation purchase pool allocation, as described in Method (d), below,

(d) a method of requisition pooling and pool allocation, comprising:

- (1) identifying automatically all unfulfilled portions of all current requisitions,
- (2) pooling digitally all goods and services requisitioned in said unfulfilled portions into an aggregate compilation organized by type of good and/or service, and by delivery destination of good or goods, or by place of service performance, and by time of delivery or performance required, as specified in each of said current requisitions,
- (3) allocating digitally each good and/or service requisitioned, respectively, either presumptively into a spot purchase pool, or if required by applicable law, or if exceeding a value set by, or meeting other criteria set by said central purchasing authority, into a negotiations purchase pool instead, and
- (4) designating digitally all goods and/or services allocated to the spot purchase pool as subject to order formulation for purchase by way of reverse-auction, but designating all goods and services allocated to the negotiations purchase pool as ineligible for purchase by way of said reverse-auction, and hence not subject to order formulation;

(e) a method of order formulation as to goods and/or services within said spot purchase pool, comprising:

- (1) applying comparative analysis to outcomes of prior purchasing, including prior purchase experience in said reverse auction, as to quality of goods and services purchased, quantity of goods received, timeliness of delivery, and cost of goods and/or services purchased and of shipment of goods purchased, to derive procurement strategies and a digital, rule-based decision structure set by said central purchasing authority of reverse-auction purchasing tactics governing order formulation that are indicated by said analysis to be likely to

result in timely purchase of satisfactory goods and services, satisfactorily delivered, at lowest obtainable total cost, and

(2) formulating orders digitally for placement in said reverse-auction, by selecting certain good or goods, service or services, and/or combinations of goods and/or services in the spot purchase pool to comprise a given order in accord with said purchasing tactics, and creating and maintaining a database of all formulated orders;

(f) a method of supplier-applicant digital submission of application, supplier-applicant approval, supplier preference administration, and supplier debarment, comprising:

(1) granting digitally, at System commencement, automatic carry-over status as authorized suppliers to all manually pre-authorized, ongoing suppliers to the government or entity,

(2) using an online application form on a Web site on the Internet for conducting e-procurement transactions by way of reverse-auction, as mentioned in Method (g) of this Claim, below, to allow any supplier-applicant to apply digitally for authorized supplier status,

(3) barring all except authorized suppliers from access to said reverse-auction, and to a facility of said Web site for authorized supplier catalog upload and update, and enforcing said bar by granting secured access solely to authorized suppliers to those two portions of said Web site,

(4) receiving and evaluating said application digitally, based on information both as provided in said application, and as available from other sources external to the System of methods of this Claim, and determining digitally whether to digitally grant authorized supplier status on criteria based on law, and on procurement policy and

law-based preferences set by said central purchasing authority, as all of same are subject to digital determination, and on an initial digital calculation of a given supplier-applicant's supplier performance rating score, based on weighted factors from data as to said supplier-applicant's solvency, business history, litigation history, purchaser complaints, reputation for ability to fulfill orders in a timely and fair manner, delivery arrangements, and any additional factors set and weighted by said central purchasing authority, but also proffering each said digital determination to said central purchasing authority for manual review and ratification or override, based on law, procurement policy, and other considerations, all as the same are not subject to digital determination,

- (5) receiving said ratification or override as digital input, and immediately digitally notifying said supplier-applicant,
- (6) assigning digitally the initially calculated supplier performance rating score to each newly authorized supplier, in accord with periodic recalculation of rating scores for existing authorized suppliers, *infra*, within this Method of this Claim,
- (7) applying digitally a periodic review of any law-based preferences for specific authorized suppliers, to the extent the same are subject to digital determination, and of a general performance supplier preference derived from a currently, digitally recalculated supplier performance rating score as to each respective authorized supplier, based upon weighted factors including those applied to initial digital calculation of a given supplier/applicant's supplier performance rating score, and also including fulfillment factors within order specification as to which order the given supplier submitted the winning bid,

- (8) renewing, adjusting, granting, or revoking any of said supplier preferences digitally, based upon said review, but subject to manual override by said central purchasing authority for reasons of law, procurement policy, and other considerations, all as the same are not subject to digital determination,
 - (9) awarding digitally preference in bidding in said reverse-auction by application of said general performance supplier preference, and
 - (10) debarring an authorized supplier from authorized supplier status digitally, but subject to manual override by said central purchasing authority based on considerations not subject to digital determination, where said authorized supplier's supplier performance rating score falls to a debarment level digitally set by said central purchasing authority, or where said supplier fails to comply with other mandatory or prohibitory criteria digitally set by said central purchasing authority, such as order fulfillment failure;
- (g) a method of conducting e-procurement transactions by way of reverse-auction at a Web site within the Internet comprising:
- (1) establishing and operating a Web site within the Internet as a reverse-auction forum for e-procurement transactions, comprised of: (i) Web pages which the general public is permitted to view, including a page for viewing of posted reverse-auction orders, and of requests for proposals or for bids not subject to said reverse-auction, and including a page for digital application for approval as an authorized supplier; (ii) Web pages accessible only by said central purchasing authority and by authorized suppliers, including a page for digital upload and update of catalogs of authorized suppliers, and a page for bidding in said reverse-auction; and (iii) a Web page not

- accessible by the general public pertaining to shippers, and shipping arrangements as to goods included in winning bids,
- (2) posting any order for goods and/or for services formulated from said spot purchase pool digitally to said reverse-auction in said Web site as a manner of soliciting bids by any number of said authorized suppliers as bidders while any such respective order remains open for bidding,
 - (3) receiving bids from any authorized supplier to supply goods and/or services specified in any respective order, or any portion thereof, while said respective order remains open for bidding,
 - (4) closing bidding for any respective order,
 - (5) identifying, by application of one or more pre-set criteria, including lowest price offered by bid, a winning bid for, and contractually accepting, or alternatively refusing to accept any or all received bid or bids for any order, or for any portion thereof, and
 - (6) notifying a winning bidder of purchase acceptance of winning bid;
- (h) a method of setting parameters for determining a winning bid, and of determining a winning bid in said reverse-auction, and of notifying both a winning bidder and one or more shipper or shippers that will be used to ship any goods in that winning bid, comprising:
- (1) setting digitally by said central purchasing authority of parameters to be used to determine a winning bid in said auction, including a factor of lowest price for comparable goods or services, which determines the winning bid, *ceteribus paribus*, but also including these additional factors: law-based preferences; supplier

performance rating score; volume discounts applicable to a given authorized supplier's bid; closest conformity to order terms; inclusion of, or conduciveness of bid to lowest cost shipping and required delivery terms otherwise available; and best overall fit with other orders either concurrent with, or immediately preceding or subsequent to a given order under bid,

(2) determining digitally which bid is the winning bid by applying the parameters thus set, and declaring that bid as the winning bid, and

(3) notifying digitally a winning bidder of winning bid acceptance, reciting accepted price or prices and all other terms of sale and, when shipping arrangements have been included in a winning bid, or when a specific shipper has otherwise been selected to deliver goods in a winning bid, notifying said winning bidder and said shipper of the shipment, specifying goods to be shipped and reciting agreed-upon terms of shipment;

(i) a method of order tracking, comprising:

(1) creating digitally an indicator within the database of formulated orders to represent an open order that toggles to a reverse-state to represent a closed order,

(2) setting digitally said indicator to the open order representation at the formulation of any given order,

(3) switching digitally said indicator to the closed order representation at either: (i) fulfillment of said order; (ii) declaration of failure of fulfillment of said order; or (iii) withdrawal of said order before declaration of acceptance of winning bid as to said order,

- (4) monitoring digitally, during all time in which any given order is thus designated as open, current status and event-history-to-date of said open order, including, but not limited to noting respective dates and times of formulation, reverse-auction posting, bidding-closing, determination of winning bid, shipping facility posting and shipment offer acceptance if posted in said shipping facility portion of the reverse-auction Web site, shipment departure, shipment delivery, verification of shipment conformity and acceptance, authorization of payment, and payment, all as to said order,
- (5) reporting digitally both periodically and upon manual request by said central purchasing authority and, as to any order including goods ~~or~~ services requisitioned by a given requisitioner or by a given requisitioning unit, also upon request by that requisitioner or by that requisitioning unit's head official, respectively, on the status and event-history-to-date of said order,
- (6) setting digitally by said central purchasing authority of time limits anticipated to elapse between such event-history-to-date sequential events as, e.g., those enumerated in Element (4) of this Method, and
- (7) monitoring digitally for each of said time limits to expire, and upon said expiration of any of said time limits before an anticipated, next sequential event, alerting said central purchasing authority as to said expiration, thereby prompting manual inquiry regarding unexpected delay in processing of any given order; and
- (j) a method of procurement accounting , comprising:
 - (1) establishing digitally an accounting series of spreadsheets reflecting:

- (a) procurement budgets of said government or entity, its various departments and/or other department-level subdivisions, their respective administrative units, and requisitioners within each;
 - (b) inventory of supply goods-on-hand in various warehouses of said government or entity, and any of its divisions and units, and of any additions to, or withdrawals from said inventory, hereinafter referred to as inventory transactions, reflecting transfer to requisitioner and requisitioning unit; and
 - (c) all purchase transactions, including payment therefor,
- (2) entering, digitally and automatically, each event requiring accounting entry as to said inventory transactions and said purchase transactions, including both reverse-auction purchase and negotiation purchase into said spreadsheets,
- (3) calculating digitally the accounting of each transaction as to all of said procurement budgets,
- (4) reconciling digitally all invoices for purchases and for shipping,
- (5) establishing digitally rules for payment release, and verifying digitally qualification for payment, and
- (6) directing digitally payment release upon verification of qualification for immediate payment release.

Claim 20 (new) The system of methods of Claim 19, above, further including a method of authorizing requisitions, comprising:

- (a) a method of pre-authorizing certain requisitions, comprising:

- (1) determining and digitally entering budgetary spending limits for each current fiscal period for each administrative unit, and setting and digitally entering a monetary limit for any requisition placed by respective administrative units, and automatically granting pre-authorized requisitioning privileges, referred to hereinafter as requisitioning authority, to each authorized requisitioner, including limits both as to types of goods and/or services that may be requisitioned by each authorized requisitioner, and as to a monetary budget for requisitioning, both as to any given requisition, and per fiscal period for a total monetary amount of all requisitions therein by each authorized requisitioner,
 - (2) recording digitally all data of said spending limits per said current fiscal period and per requisition for each said administrative unit, and said limits of requisitioning authority of each authorized requisitioner in a database maintained by said central purchasing authority,
 - (3) comparing digitally, upon any requisition, the type or types of good or goods and/or service or services requisitioned, and total monetary amount of said requisition to all such aforesaid limits in said database,
 - (4) denying pre-authorized status automatically to said requisition in the event that any of said limits is exceeded by said requisition or the good or goods and/or service or services requisitioned therein, or alternatively acknowledging said pre-authorized status otherwise, and processing said requisition; and
- (b) a method of specific-case requisition authorization, comprising:
- (1) determining and digitally entering parameters for automated grant of specific-case requisition authorization as to requisitions denied pre-authorized status,

- (2) recording digitally the data of said parameters in a database maintained by said central purchasing authority,
- (3) comparing digitally, upon said denial of pre-authorized status to any requisition, said parameters with attributes of that respective requisition, to which said parameters apply,
- (4) granting automatically said specific-case requisition authorization if said attributes of that requisition are within said parameters, otherwise alerting said central purchasing authority to a need to manually review said requisition,
- (5) reviewing manually by said central purchasing authority of said requisition, in any case where the automated process of Elements (3) and (4) of this Method do not result in automatic grant of specific-case requisition authorization, of said requisition, and manually either granting or denying said specific-case requisition authorization, and
- (6) denying any requisition as to which neither automatic nor manual, specific-case requisition authorization is granted, otherwise processing said requisition.

Claim 21 (new) The system of methods of Claim 20, above, further including a method of analyzing procurement data, predicting procurement needs, improving procurement practices, and giving procurement reminders and prompts, comprising:

- (a) a method of procurement data analyses, requisition pattern recognition, and reporting to said central purchasing authority, and to requisition unit chief officials, comprising:
 - (1) extracting digital procurement data stored digitally,

- (2) analyzing digitally said data both on a government-wide or entity-wide basis, and specifically as to each department, administrative unit, and each authorized requisitioner:
 - (a) to recognize requisitioning patterns, and requisitioning, ordering, and/or data processing behaviors aberrant from recent history-based requisitioning needs of the unit, department, or government or entity;
 - (b) to determine in what ways and to what extent procurement expends sums budgeted and/or affects budgeting levels or the budgeting process; and
 - (c) to report comprehensively on all fiscal effects of, and trends of procurement by said government or entity as a whole, and
- (3) reporting digitally to said central purchasing authority as to each department or department-level subdivision of the government or entity, and each requisitioning administrative unit, and insofar as relating to any department or department-level subdivision of the government or entity, or to any requisitioning administrative unit, to its chief official, on all analyses relevant to any analytical aim specified in Element (2) of this Method; and
- (b) a method of improving procurement practices, predicting procurement needs, and giving reminders and prompts regarding procurement, comprising:
 - (1) cumulating digitally all data including at least data as to inventory, requisitioning trends, requisition pooling, order formulation, reverse-auction posting and bidding, transaction and shipment terms and performance,
 - (2) analyzing said data digitally to derive procurement strategies and purchasing tactics that improve procurement practices, including, e.g., to improve formulating of future

orders from future requisitions, and to optimize order posting, for purposes of reducing purchasing cost, and to otherwise improve processes and outcomes of purchasing,

- (3) predicting digitally probable procurement patterns and needs over at least an ensuing calendar year from analysis of said requisitioning trends, and also more immediately,
- (4) applying digitally each prediction and each analysis to modify requisition pooling, identify needed acquisitions of warehouse inventory, or alternatively to reduce said inventory where current levels exceed digitally set minimum levels and to otherwise generally maximize Just-In-Time procurement efficiency in practice,
- (5) reporting digitally all conclusions and recommendations derived from all said predictions and analyses to said central purchasing authority and, insofar as relating to any department or department-level subdivision of the government or entity or to any requisitioning administrative unit, to the chief official thereof, and
- (6) giving reminders and prompts digitally to requisitioners and requisitioning administrative unit chief officials to check stock levels for adequacy and conversely, for overstock, and to consider what level of procurement may be required in the near future as to respective goods and/or services used, and giving pointers to more efficient use of requisitioning.

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Claim 22 (new) The system of methods of Claim 21, above, further including a method of managing a centralized, unified catalog augmenting aggregated supplier catalog data with purchasing-history data, comprising:

- (a) requesting authorized suppliers to digitally upload or to otherwise provide catalogs of goods and/or services regularly offered for sale,
- (b) receiving digitally all digitally uploaded supplier catalogs, while receiving manually all catalogs provided non-digitally, and thereupon digitizing at least all textual data as to goods and/or services in non-digital catalogs provided by authorized suppliers,
- (c) uniting digitally all said supplier catalog data in a single, unified, digital catalog, and digitally augmenting said data by organizing it topically, with addition of a topical table of contents and index, and word/abbreviation search features and applying a universal product classification scheme and adding data extracted from a database of prior orders, including lowest price actually paid for, and quantity purchased by the government or entity overall of each good or service, within a calendar year immediately preceding current consultation of said unified digital catalog, and
- (d) displaying digitally, upon request, said unified catalog to any authorized requisitioner.

Claim 23 (new) The system of methods of Claim 22, above, further including a method of arranging and managing shipping of goods purchased, comprising:

- (a) posting digitally any shipment not already allocated with a winning bid for goods requiring shipping, or not already otherwise allocated at time of winning bid determination in a shipping facility Web page of the reverse-auction Web site as a solicitation for offers of shipment by authorized shippers with specifications of shipment terms and requested additional mandatory or optional services, such as shipment of only

part of the goods in said winning bid, or consolidation with other simultaneously pending, in-bound shipments, and distributed delivery,

- (b) notifying digitally specific, authorized shippers with a known capability to carry and deliver that shipment,
- (c) receiving digitally offers of shipment by authorized shippers, specifying offered terms of shipment,
- (d) determining which offer of shipment to accept, based on factors digitally pre-set by said central purchasing authority, including: (i) availability of other compatible in-bound shipments for consolidated shipment; (ii) whether distributed delivery to more than one destination is involved in the shipment, including consolidated shipment; (iii) whether the shipment or consolidated shipment and any distributed delivery will achieve timely delivery and/or significant cost-savings; (iv) whether offered terms include substantial discounts, as for exclusive shipping requirements contracting, or include unusually favorable timely delivery assurances; and (v) whether a given bid is lowest, or close to lowest in price, and also based on data as to past shipments,
- (e) notifying digitally the shipper determined by Method (d), above, of acceptance of said offer of shipment,
- (f) receiving digitally notification by said shipper when delivery of that shipment has been made,
- (g) querying digitally, immediately thereupon, the receiving requisition node or other destination, e.g., a warehouse of the government or entity, as to receipt and conformity of said shipment to identity, quantity, and good condition of goods agreed to be delivered, and

- (h) declaring fulfillment of said winning bid or winning bids or any portion of said winning bid or winning bids for any good or goods within a respective winning bid included in said shipment.

Claim 24 (new) The system of methods of Claim 23, above, further including a method of presentation, at requisitioner option, of one or more requisition templates, comprising:

- (a) examining digitally, automatically, upon each requisition, a most recent calendar-year period of requisitions by the authorized requisitioner, including that requisition just digitally submitted, to identify the most frequently requisitioned goods and/or services and patterns of grouping of such frequently requisitioned goods and/or services within any specific requisition within that period,
- (b) constructing digitally one or more requisition templates from said frequently requisitioned goods and/or services, and/or said patterns of grouping of frequently requisitioned goods and/or services, listing said goods and/or services as items in a given requisition template,
- (c) storing said templates digitally as data files compatible to any data file format used for requisition data digital submission, and
- (d) presenting digitally an authorized requisitioner, upon successful verification of authorized status of requisition node and of said authorized requisitioner at the beginning of digital communication for purpose of placement of a requisition, with the option of using any of said templates as an initial point from which to prepare a current requisition for digital

submission, together with an alternative option to proceed to requisition preparation without use of any template.

In addition to all of the foregoing claims for patent, pursuant to *Manual of Patent Examining Procedure (MPEP)*, Section 707.07(j), in view of the *pro se* status of the Joint Inventors herein, as to any of said foregoing claims that may be deemed either not narrowly drafted enough for patent qualification, or unnecessarily, overly narrowly drafted as to the patentable subject matter, or that may simply not be succinct, or that may otherwise not be adequately written, Joint Inventors request the examiner to draft one or more suitable claim(s) for patentable subject matter, either as indicated in the foregoing claims, or as perceived by the Examiner.